## **MODELS**

Our magnetic level gauges are not only suitable for various applications, but are also available in a variety of models and sizes. The parts of the device are by default made of stainless steel (SS316L). It is possible to provide the measuring tube with a protective layer of insulating material. A layer of Armaflex will prevent crystallization of the liquid. Fiberglass tape is used to avoid heat loss in the tube and also to prevent your fingers getting burned.



#### Model MLA

This model has one side connection and is able to withstand a pressure up to 10 bar and temperatures of -45 °C up to 400 °C.

Model MLB

This model has two side connections and is the most common model. It is available in a variety of designs and sizes. It can handle vacuum pressure and is able to withstand a pressure up to 197 bar and temperatures of -45 °C up to 400 °C.

#### Model MLC

This model has inline connections between two pipes. It is able to withstand a pressure up to 40 bar and temperatures of -45 °C up to 400 °C.

#### Model MLD

This model has a top mounted level indicator and is able to withstand a pressure up to 40 bar and temperatures of -45 °C °C up to 400 °C.

### **Options**

- Drain and vent valves
- PTFE gasket
- Isolation valves
- SS Scale (mm, cm, inch, %)
- Switches (SPDT or SPST)
- Transmitter 4-20 mA with local display
- Insulation Glass fiber (hot applications up to + 400°C)
- Insulation Armaflex (cold application up to 50°C)
- Damping springs
- Process connections with RTJ flanges

	MODEL MLA	MODEL MLB	MODEL MLC	MODEL MLD	MODEL MLE
CHAMBER (Ø x	EN10217-7	EN10217-7	EN10217-7	EN10217-7	EN10217-7
WT)	60,30x2,00	60,30x 2,00	60,30x	60,30x 2,00	60,3x2,00
	ASTM A312	ASTM A312	2,00	88,9x 3,05	88,9x3,05
	2" sch.10/40	2" sch.10/40/80			ASTM A312
					Sch. 2"/3"/4"
PRESSURE	PN10 & 16	PN10, 16, 40, 63,	PN10, 40	PN16/PN25	PN10,16,40 &63
RATING	150#/ 300#	100, 160 & 197	bar	150#/300#	150#/300/600#
		BARG	150#/300		
		150#/300/600#			
		900# & 1500#			
MAXIMUM	400 °C	400 °C	400 °C	400 °C	400°C
TEMPERATURE					
MAXIMUM	20 mtr	20 mtr	5 mtr	4 mtr	20 mtr
LENGTH					
PROCESS	BSP/ NPT	BSP/ NPT	BSP/ NPT	BSP/ NPT	
CONNECTIONS	1/2"- 11/2"	½"- 11/2"	½"- 11/2"		
THREADED					
PROCESS	DN15-DN65	DN15-DN65	DN15-	DN50-DN150	DN50-DN150
CONNECTIONS	1/2" - 3"	1/2" - 3"	DN65	2" - 6"	2" - 6"
FLANGED			1/2" - 3"		
DRAIN PLUG/	1/2" - 3/4"	1/2" - 3/4"		1/2" - 3/4"	1/2" - 3/4"
VENT					
BSP/ NPT					
TYPE APPROVALS	PED, ATEX,	PED, ATEX, IECEx,	PED, ATEX,	PED, ATEX,	PED, ATEX, IECEx,
	IECEx, BV,	BV, DNV.	IECEx, BV,	IECEx,	BV,DNV.
	DNV.		DNV.	BV,DNV.	
FLOAT	>360 kg/m <sup>3</sup>	>360 kg/m³	>360	>650 kg/m <sup>3</sup>	>550 kg/m <sup>3</sup>
			kg/m³		

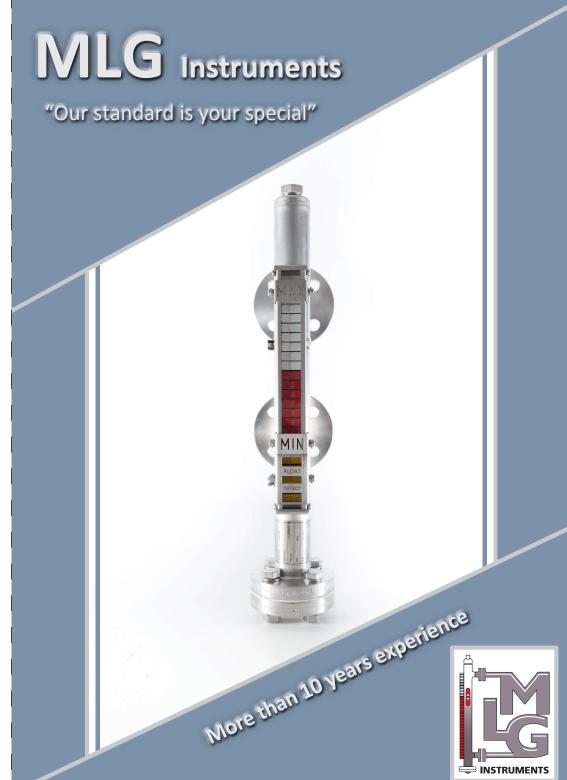


#### -MODEL MLE- NEW PRODUCT

#### Bridle chambers for radar sensors.

This pictures shows a magnetic level gauge with a bypass bridle chamber including a radar sensor.





# **MLG INSTRUMENTS**

MLG Instruments is a Dutch company that produces high-quality measuring instruments such as magnetic level gauges, transmitters, (float) switches and chambers for radar sensors. We engineer, manufacture and sell our products ourselves in Schiedam. We distinguish ourselves by our very short delivery time, granting special wishes and a personal approach. We want to provide our customers with the best service and a good quality product that meets their specific wishes and requirements. MLG Instruments is known for its customized products and innovative way of thinking. Our expertise and extensive experience in the field of measuring instruments allows us to ensure the highest quality. If necessary, we can supply our products with different certifications.























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## **MAGNETIC LEVEL GAUGES**



**Applications** 

Our magnetic level indicators and Guided Wave Radars (GWR)

are used for measuring the level

of the liquid in a closed tank or vessel and to make the liquid

level visible with an indication

rail. Our magnetic level gauges

can be used as well to measure the interface level between two

They are maintenance free and

are unaffected by dust, shocks,

vibrations, high temperatures,

humidity or even corrosive, acidic

liquids in the same tank.

substances.

As an option the standard level gauge can also be supplied with electronic components such as switches and transmitters like reed chains.

In addition the possibility exists to order a magnetic level gauge with a bypass bridle chamber including a radar sensor.



with local display

transmitter head

of PR Electronics











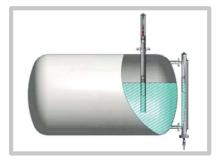




## **WORKING PRINCIPLE**

A magnetic level gauge is mounted to the side or the top of a liquid tank with flanges or with thread connections. The device is made of a vertical measuring tube and an exterior measuring column with an indication rail with flaps on it. Each flap is fitted with a permanent magnet and is colored white on one side and red on the other. The tube and the measuring column are both made of nonmagnetic material. A custom made float that contains a ring magnet is inserted in the measuring tube. By default the floats are made of stainless steel (SS316Ti).

However a different type of alloy or metal such as titanium, Inconel and Monel 400 will be used if required. Based on calculations and in consultation with the customer the best material for the float and the correct size and shape will be chosen by us. Magnetic level gauges work on the principle of communicating vessels and therefore the level in the tube is equal to the level in the tank.



The ring magnet in the float repels the magnets in the flaps. When the float moves up with the liquid surface, the flaps will turn red and indicate the liquid level in the tank. The red colored flaps indicate how much liquid is in the tank and the white colored flaps show which part of the tank is empty and contains gas.







